

FIG. 1

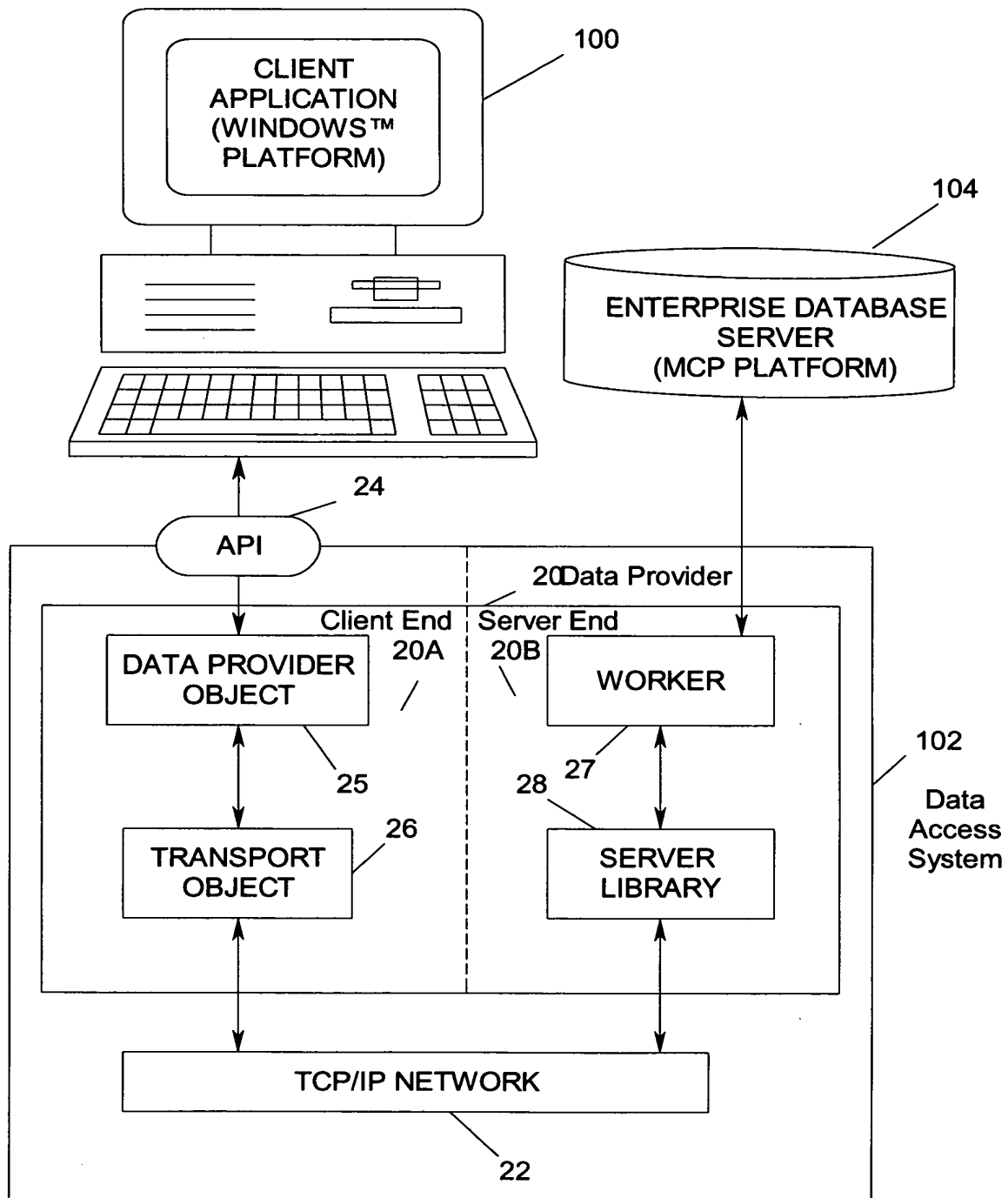


Fig. 2

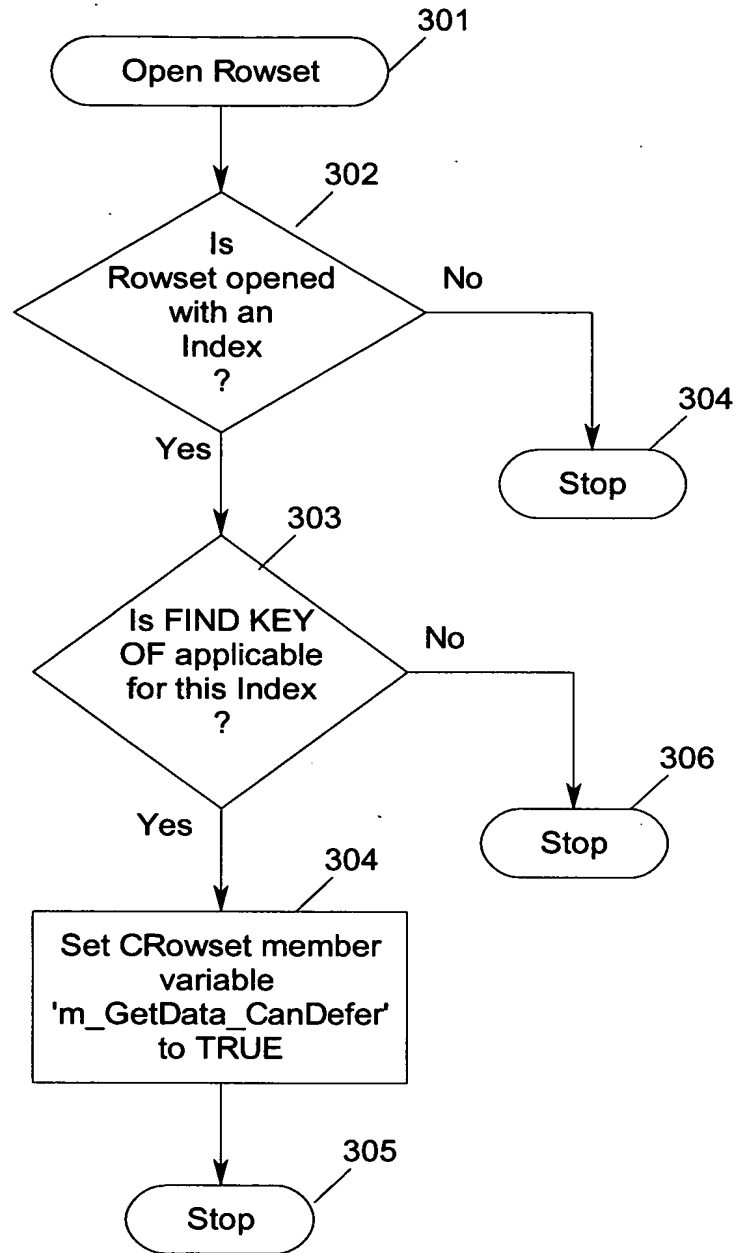


Fig. 3

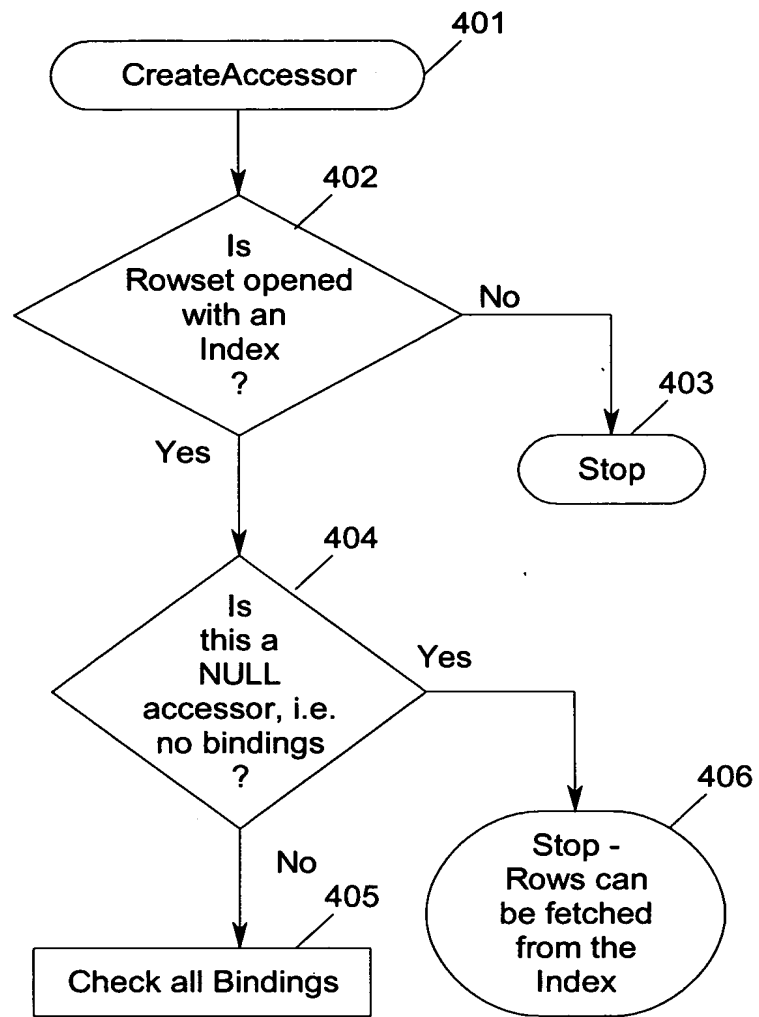
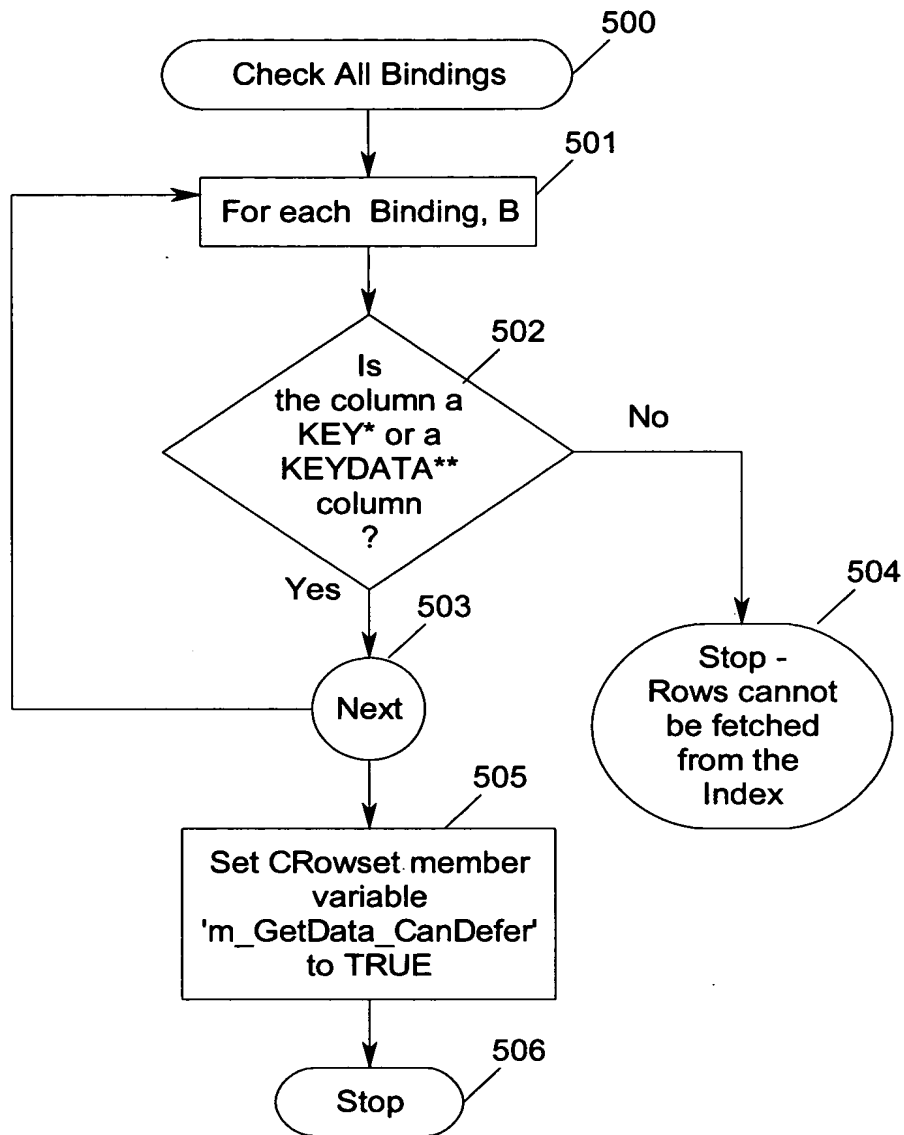


Fig. 4



*KEY - a column that is used for collating an Index
 **KEYDATA - a column that is present in an index structure to provide fast access but is not used for collation

Fig. 5

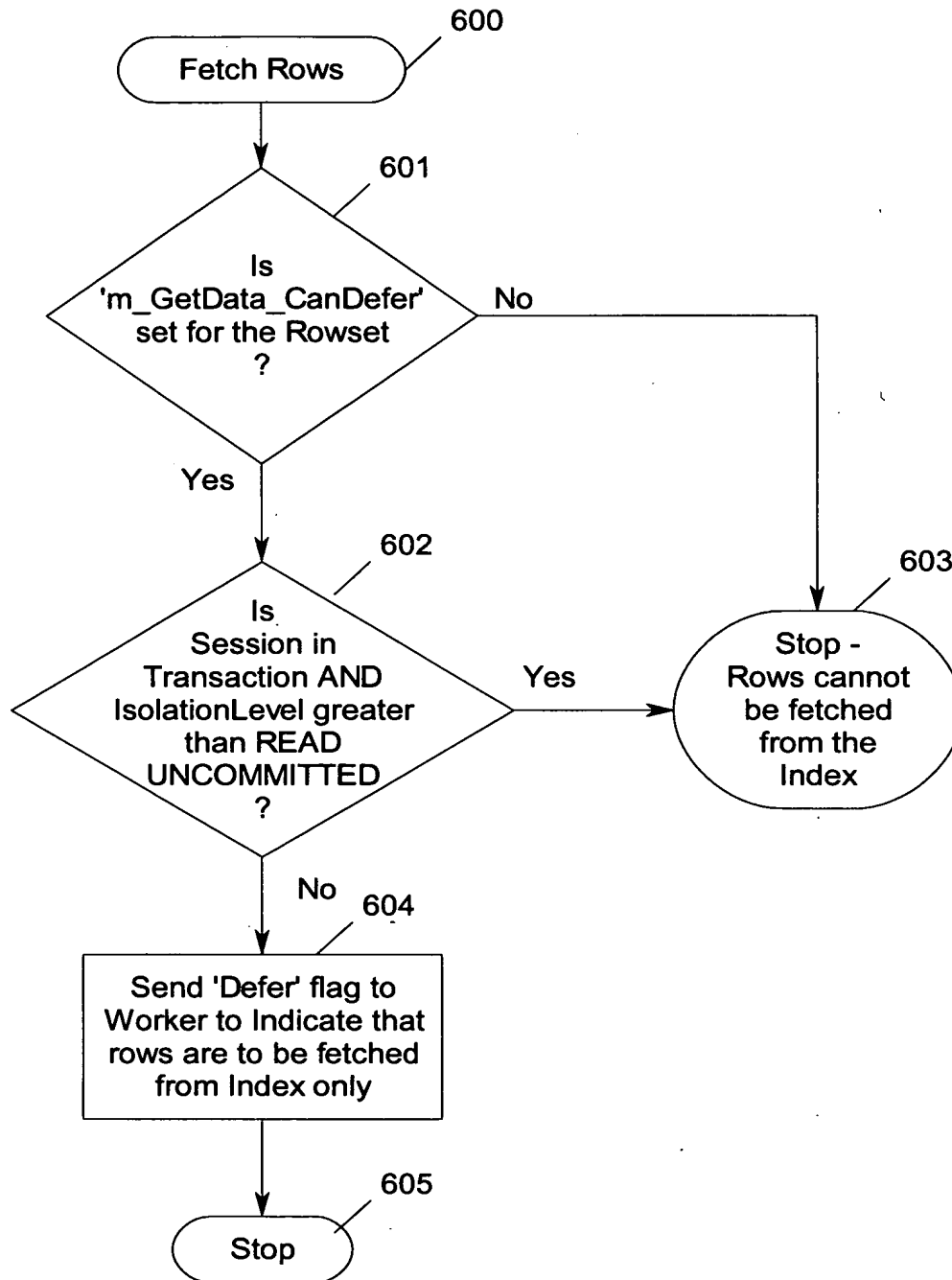


Fig. 6

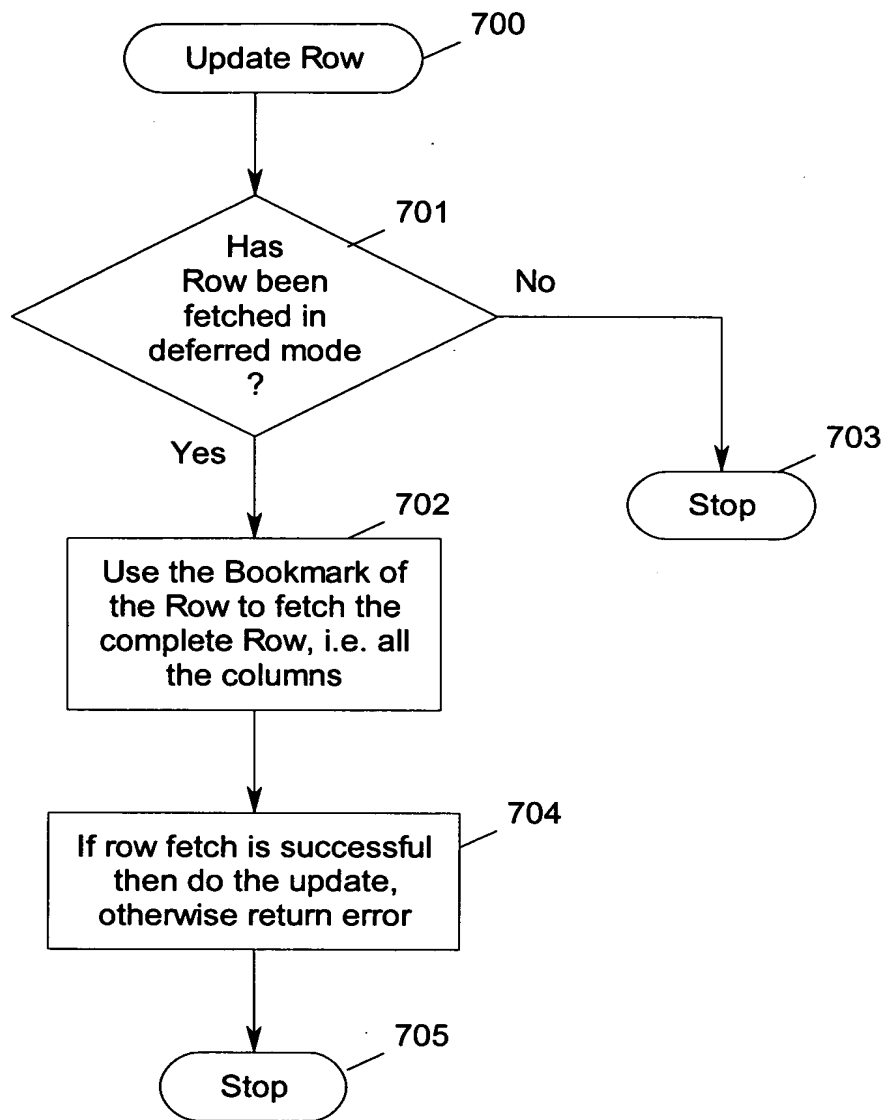


Fig. 7

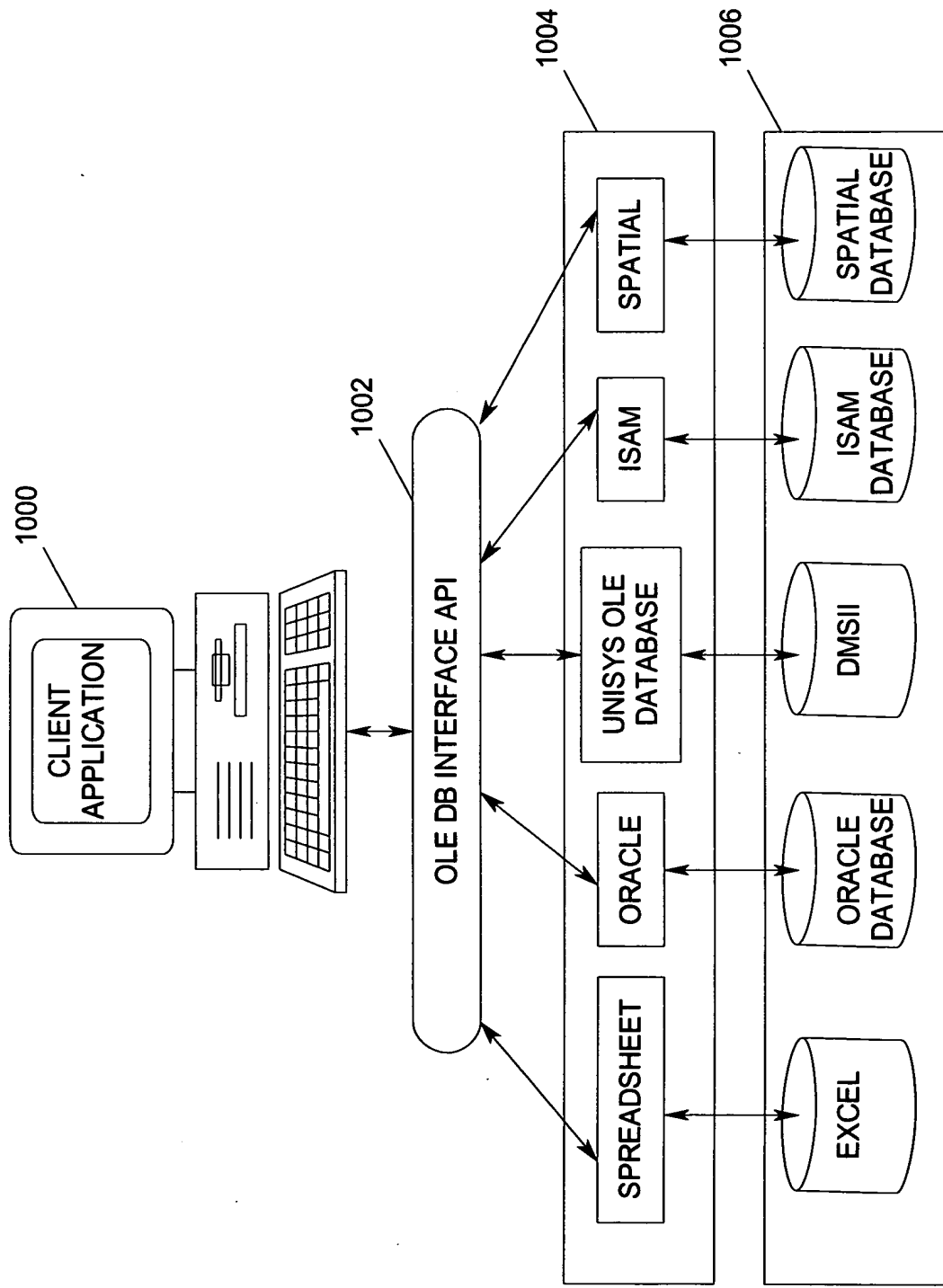


Fig. 8

NORTHWINDLAP - Schema Utility					
File View Tools Help					
<div> <div>▲</div> <div> northwindlap acc_empterritorys cat_catid_idx cat_catname_idx categories cust_company_idx cust_custid_idx customers emp_empid_idx emp_lastname_idx emp_psticode_idx ord_cusorder_idx ord_employid_idx ord_orderdate_idx ord_orderid_idx orddt_ordetl_idx orddt_orderid_idx orderdetails orders prod_category_idx prod_prodname_idx prod_product_idx prod_supplid_idx products </div> <div>▼</div> </div>		<div> <div>Database Name</div> <div>northwindlap</div> </div>	<div> <div>Base CCS</div> <div>EBCDIC</div> </div>	<div> <div>Base Year</div> <div>1957</div> </div>	<div> <div>Century Start</div> <div>1930</div> </div>
<div> <div>Structure Name</div> <div> categories customers employees empterritories northwindclap orderdetails orders products region shippers suppliers territories </div> </div>		<div> <div>Structure Type</div> <div> Compact Data Set Data Set Data Set Ordered Data Set Global Data Set Data Set Data Set Data Set Direct Data Set Unordered Data Set Data Set Random Data Set </div> </div>	<div> <div>Record Length</div> <div> 792 270 1050 30 12 42 252 114 60 72 528 78 </div> </div>		

Fig. 9A

NORTHWINDOLAP - Schema Utility				
File View Tools Help				
<div> <div>▲</div> <div> <div>empterritories</div> <div>northwindolap</div> <div>ord_cusorder_idx</div> <div>ord_employid_idx</div> <div>ord_orderdate_idx</div> <div>ord_orderid_idx</div> <div>crddt_crddetl_idx</div> <div>crddt_orderid_idx</div> <div>prod_category_idx</div> <div>prod_prodname_idx</div> <div>prod_product_idx</div> <div>prod_supplid_idx</div> <div>products</div> <div>productid</div> <div>productname</div> <div>supplierid</div> <div>categoryid</div> <div>quantityperunit</div> <div>unitinfo</div> <div>unitprice</div> <div>unitinstock</div> <div>unitsonorder</div> <div>reorderlevel</div> <div>discontinued</div> </div> <div>▼</div> </div>	Structure Name	Structure Type	Record Length	
	products	Data Set	114	
	Item Name	Item Definition	Interpretation	OLE DB Type
	<div> <div>productid</div> <div>productname</div> <div>supplierid</div> <div>categoryid</div> <div>quantityperunit</div> <div>unitinfo</div> <div>unitprice</div> <div>unitinstock</div> <div>unitsonorder</div> <div>reorderlevel</div> <div>discontinued</div> </div>	<div> <div>REAL(59)</div> <div>ALPHA(40)</div> <div>REAL(59)</div> <div>REAL(59)</div> <div>ALPHA(20)</div> <div>GROUP</div> <div>NUMBER(519,4)</div> <div>REAL(59)</div> <div>REAL (59)</div> <div>REAL(59)</div> <div>REAL(59)</div> </div>	<div> <div>REAL(59)</div> <div>ALPHA(40)</div> <div>REAL(59)</div> <div>REAL(59)</div> <div>ALPHA(20)</div> <div>HIDDEN</div> <div>NUMBER(519,4)</div> <div>REAL(59)</div> <div>REAL(59)</div> <div>REAL(59)</div> <div>REAL(59)</div> </div>	<div> <div>DBTYPE_NUMERIC</div> <div>DBTYPE_STR</div> <div>DBTYPE_NUMERIC</div> <div>DBTYPE_NUMERIC</div> <div>DBTYPE_STR</div> <div></div> <div>DBTYPE_NUMERIC</div> <div>DBTYPE_NUMERIC</div> <div>DBTYPE_NUMERIC</div> <div>DBTYPE_NUMERIC</div> <div>DBTYPE_NUMERIC</div> </div>

Fig. 9B

NORTHWINDOLAP - Schema Utility				
File View Tools Help				
<div>▲</div> <div> emp_psticode_idx employees empterritories northwindolap ord_cusorder_idx ord_employid_idx ord_orderdate_idx ord_orderid_idx orddt_orddtel_idx orddt_orderid_idx orderdetails orders prod_category_idx prod_procname_idx prod_product_idx productid unitprice unitsinstock unitsonorder prod_supplid_idx products region region_acc ship_shipper_idx shippers </div> <div>▼</div>	Structure Name	Structure Type	Spanned Structure	
	prod_product_idx	Index Sequential	products	
	Item Name	Item Definition	Interpretation	OLE DB Type
	productid	REAL(59)	REAL(59)	DBTYPE_NUMERIC
	unitprice	NUMBER(519,4)	NUMBER(519,4)	DBTYPE_NUMERIC
	unitsinstock	REAL(59)	REAL(59)	DBTYPE_NUMERIC
	unitsonorder	REAL(59)	REAL(59)	DBTYPE_NUMERIC

Fig. 9C

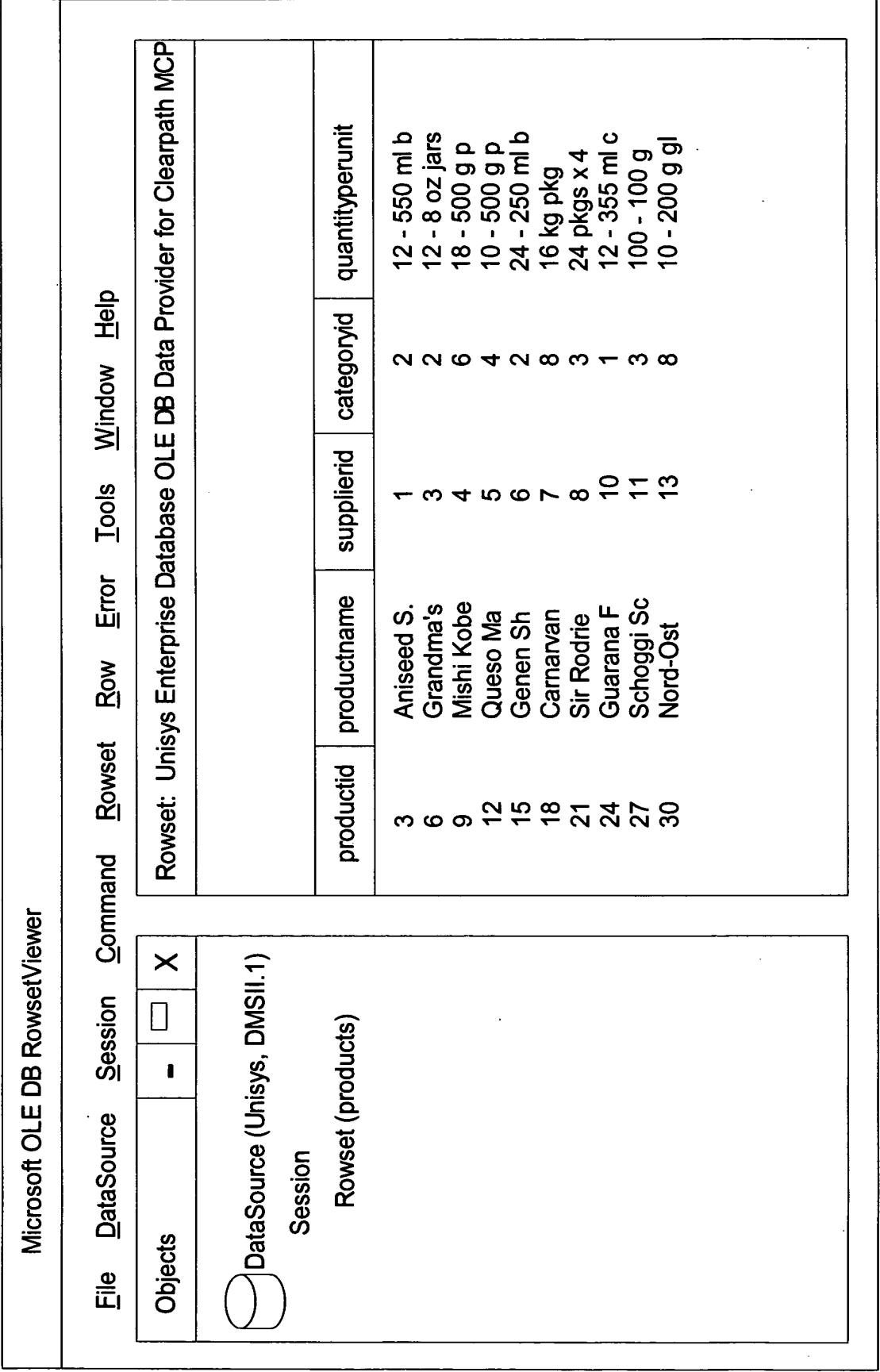


Fig. 10